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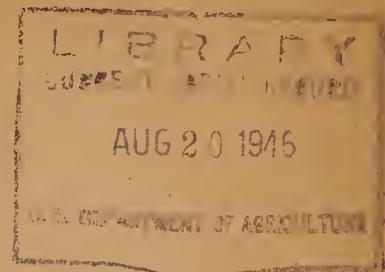


UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Research Administration  
Bureau of Agricultural and Industrial Chemistry

QUARTERLY

AUG 20 1946

NAVAL STORES REPORT



on

Production, Distribution, Consumption and Stocks

of

TURPENTINE AND ROSIN

of the

UNITED STATES

By Crop Years

Covering Quarter - April 1 - June 30, 1946

Issued August 13, 1946

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## FOREWORD

In addition to its regular Annual and Semi-Annual Naval Stores Reports on production, consumption, and stocks of naval stores, the Naval Stores Research Division has, at the request of some of the War Agencies, undertaken the issuance of quarterly reports. These reports are issued under Federal Act 278, authorizing and directing the Secretary of Agriculture to collect, compile, and publish statistics and essential information relating to spirits of turpentine and rosin produced, held, and used in the domestic and foreign commerce of the United States.

If production figures for this period are used as a basis for estimating this season's probable production, the fact that gum naval stores production is seasonal should be borne in mind. Wood naval stores production, on the other hand, is not seasonal but is based largely upon probable consumer demand.

As in previous reports, carryover (stocks) of turpentine and rosin is separated into gum and wood products. Stocks of wood rosin do not include so-called "B wood resin." While sulphate wood turpentine is carried in the regular production and carryover tables, data on tall oil are in a table separate from gum and wood rosins. The term tall oil refers to the mixture of resin and fatty acids recovered by the acidification of the soap curds (black liquor soap) obtained in the production of sulphate pulp. The tall oil so obtained contains approximately 42 percent of resin acids.

The data on production, consumption, and stocks are expressed in commercial units: For turpentine - barrels of 50 gage gallons; and for rosin - drums of approximately 520 pounds net weight. A unit of naval stores consists of one barrel of turpentine and two and two-thirds drums of rosin. Carryover figures do not include gum turpentine or rosin producible from crude gum on hand.

Statistics on exports and imports of turpentine and rosin are now available and are included in this report.

These reports are designed to be of use to the industry — producer, processor, factor, distributor, and consumer. Every effort is made to obtain complete and accurate information but the completeness, accuracy, and promptness of issue depend upon the cooperation of those reporting. In accepting the statistics given in this report, as well as those in previous reports, it should be borne in mind that the Bureau of Agricultural and Industrial Chemistry merely assembles the figures from the individual reports received and is not responsible for their accuracy.

The Bureau of Agricultural and Industrial Chemistry extends its thanks to those producers, processors, factors, distributors, and consumers who have so kindly cooperated in furnishing the requested information. The assistance of Mrs. Clotilde H. Oubre in tabulating the data for this report is gratefully acknowledged.

SUMMARY OF TURPENTINE

SUPPLY, DISTRIBUTION AND CARRYOVER (Bbls. - 50 gals.)  
 (By naval stores crop years, beginning April 1 and ending March 31)

	<u>1946-47</u> <u>3 mos. (April - June)</u>			<u>1945-46</u> <u>3 mos. (April - June)</u>		
	<u>Total</u>	<u>Gum</u>	<u>Wood</u>	<u>Total</u>	<u>Gum</u>	<u>Wood</u>

TABLE 1a - SUPPLY AND DISTRIBUTION

U. S. Carryover April 1 <sup>1/</sup>	100,749	58,088	42,661	202,546	168,011	34,535
Production <sup>2/</sup>	145,477	73,677	66,800	139,046	74,574	64,472
Imports	<u>6,149</u>	<u>6,149</u>	<u>---</u>	<u>4,875</u>	<u>4,875</u>	<u>---</u>
Available Supply	252,375	142,914	109,461	346,467	247,460	99,007
Less Carryover June 30 <sup>3/</sup>	<u>77,440</u>	<u>39,002</u>	<u>38,438</u>	<u>184,777</u>	<u>148,899</u>	<u>35,878</u>
Apparent Total						
Consumption	174,935	103,912	71,023	161,690	98,561	63,129
Less Exports	<u>22,768</u>	<u>16,451</u>	<u>6,547</u>	<u>19,697</u>	<u>15,305</u>	<u>4,392</u>
Apparent U. S. Consumption	152,137	87,461	64,676	141,993	83,256	58,737

TABLE 2a - CARRYOVER (Stocks)

U. S. Carryover April 1	100,749	58,088	42,661	202,546	168,011	34,535
U. S. Carryover June 30	<u>77,440</u>	<u>39,002</u>	<u>38,438</u>	<u>184,777</u>	<u>148,899</u>	<u>35,878</u>
Increase	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>1,343</u>
Decrease	23,309	19,086	4,223	17,769	19,112	<u>--</u>

<sup>1/</sup> From Table 4a, 1945-46, Annual Naval Stores Report.

<sup>2/</sup> Table 5a.

<sup>3/</sup> Table 4a.

SUMMARY OF ROSIN

SUPPLY, DISTRIBUTION AND CARRYOVER (Drums - 520 lbs. net)  
 (By naval stores crop years, beginning April 1 and ending March 31)

	<u>1946-47</u> <u>3 mos. (April - June)</u>			<u>1945-46</u> <u>3 mos. (April - June)</u>		
	<u>Total</u>	<u>Gum</u>	<u>Wood</u>	<u>Total</u>	<u>Gum</u>	<u>Wood</u>
U. S. Carryover April 1/	388,682	237,504	151,178	388,266	265,881	122,385
Production <sup>2/</sup> Imports	416,690	206,496	210,194	376,750	201,392	175,358
---	---	---	---	5,313	5,313	---
Available Supply	805,372	441,000	361,372	770,329	472,586	297,743
Less Carryover June 30 <sup>3/</sup>	364,179	239,887	124,292	383,979	250,958	133,021
Apparent Total Consumption	441,193	204,113	237,080	386,350	221,628	164,722
Less Exports	91,423	63,481	27,942	33,774	15,182	18,592
Apparent U. S. Consumption	349,770	140,632	209,138	352,576	206,446	146,130

TABLE 1b - SUPPLY AND DISTRIBUTION

U. S. Carryover April 1/	388,682	237,504	151,178	388,266	265,881	122,385
Production <sup>2/</sup> Imports	416,690	206,496	210,194	376,750	201,392	175,358
---	---	---	---	5,313	5,313	---
Available Supply	805,372	441,000	361,372	770,329	472,586	297,743
Less Carryover June 30 <sup>3/</sup>	364,179	239,887	124,292	383,979	250,958	133,021
Apparent Total Consumption	441,193	204,113	237,080	386,350	221,628	164,722
Less Exports	91,423	63,481	27,942	33,774	15,182	18,592
Apparent U. S. Consumption	349,770	140,632	209,138	352,576	206,446	146,130

TABLE 2b - CARRYOVER (Stocks)

U. S. Carryover April 1/	388,682	237,504	151,178	388,266	265,881	122,385
U. S. Carryover June 30	364,179	239,887	124,292	383,979	250,958	133,021
Increase	---	2,383	---	---	---	10,636
Decrease	24,503	---	26,886	4,287	14,923	---

1/ From Table 4b, 1945-46 Annual Naval Stores Report.

2/ Table 5b. Includes reclaimed rosin.

3/ Table 4b.

DETAILS AND SUMMARY OF TURPENTINE CARRYOVER (Bbls. - 50 gals.)

	<u>1946</u> <u>June 30</u>		<u>1945</u> <u>June 30</u>
	<u>Total</u>	<u>Gum</u>	<u>Wood</u>
Production Points <sup>1/</sup>			
Gum Stills <sup>2/</sup>	15,481	15,481	---
Wood Plants			
Steam Dist.	6,836	---	6,836
Sulphate	9,951	---	9,951
Dest. Dist.	343	---	343
Total	32,611	15,481	17,130
Sou. Concent. Points <sup>1/</sup>	7,052	7,052	---
Distribution Points			
Eastern	5,401	4,083	1,318
Central	7,188	4,174	3,014
Western	3,389	2,838	551
Total <sup>3/</sup>	15,978	11,095	4,883
Industrial Plants <sup>4/</sup>	21,799	5,374	16,425

TABLE 3a - DETAILS OF TURPENTINE CARRYOVER (Stocks)

Production Points	32,611	15,481	17,130	41,523	29,482	12,041
Sou. Concent. Points	7,052	7,052	---	91,946	91,946	---
Distribution Points	15,978	11,095	4,883	28,689	20,615	8,074
Industrial Plants	21,799	5,374	16,425	22,619	6,856	15,763
Total in U. S.	77,440	39,002	38,438	184,777	148,899	35,878

<sup>1/</sup> Irrespective of ownership. Some of the turpentine may have been sold and may be awaiting shipment.

<sup>2/</sup> Compiled from reports by producers, processors, and factors.

<sup>3/</sup> Compiled from reports of individual distributors.

<sup>4/</sup> Compiled from reports of individual consumers.

DETAILS AND SUMMARY OF ROSIN CARRYOVER (Drums - 520 lbs. net)

	<u>1946</u> <u>June 30</u>		<u>1945</u> <u>June 30</u>
	<u>Total</u>	<u>Gum</u>	<u>Wood</u>
Production Points <sup>1/</sup>			
Gum Still <sup>2/</sup>	84,943	84,943	---
Wood Plants			
Steam Dist. <sup>3/</sup>	35,306	---	35,306
Sulphate	---	---	---
Dest. Dist.	---	---	---
Total	120,249	84,943	35,306
Sou. Concent. Points <sup>1/</sup>	14,347	14,347	---
Distribution Points			
Eastern	8,922	6,619	2,303
Central	5,924	3,680	2,244
Western	389	110	579
Total <sup>4/</sup>	15,535	10,409	5,126
Industrial Plants <sup>5/</sup>	214,048	130,188	83,860

TABLE 3b - DETAILS OF ROSIN CARRYOVER (Stocks)

Production Points <sup>1/</sup>						
Gum Still <sup>2/</sup>	84,943	84,943	---	42,923	42,923	---
Wood Plants						
Steam Dist. <sup>3/</sup>	35,306	---	35,306	48,019	---	48,019
Sulphate	---	---	---	---	---	---
Dest. Dist.	---	---	---	---	---	---
Total	120,249	84,943	35,306	90,942	42,923	48,019
Sou. Concent. Points <sup>1/</sup>	14,347	14,347	---	25,873	25,873	---
Distribution Points						
Eastern	8,922	6,619	2,303	6,615	4,403	2,212
Central	5,924	3,680	2,244	4,362	2,464	1,898
Western	389	110	579	1,042	424	618
Total <sup>4/</sup>	15,535	10,409	5,126	12,019	7,291	4,728
Industrial Plants <sup>5/</sup>	214,048	130,188	83,860	255,145	174,871	80,274

TABLE 4b - SUMMARY OF ROSIN CARRYOVER (Stocks)

Production Points	120,249	84,943	35,306	90,942	42,923	48,019
Sou. Concent. Points	14,347	14,347	---	25,873	25,873	---
Distribution Points	15,535	10,409	5,126	12,019	7,291	4,728
Industrial Plants	214,048	130,188	83,860	255,145	174,871	80,274
Total in U. S.	364,179	239,887	124,292	383,979	250,958	133,021

<sup>1/</sup> Irrespective of ownership. Some of the rosin may have been sold and may be awaiting shipment.

<sup>2/</sup> Compiled from reports by producers, processors, and factors. Includes reclaimed rosin.

<sup>3/</sup> Does not include by-products, such as "B. wood resin," resulting from making paler grades from FF wood rosin.

<sup>4/</sup> Compiled from reports of individual distributors.

<sup>5/</sup> Compiled from reports of individual consumers.

DETAILS OF PRODUCTION

(By naval stores crop years, beginning April 1 and ending March 31)

	<u>1946-47</u> <u>3 mos. (April - June)</u>		<u>1945-46</u> <u>3 mos. (April - June)</u>			
	<u>Total</u>	<u>Gum</u>	<u>Wood</u>	<u>Total</u>	<u>Gum</u>	<u>Wood</u>

TABLE 5a - PRODUCTION OF TURPENTINE (Bbls. - 50 gals.)

Gum	78,677	78,677	---	74,574	74,574	---
Wood						
Steam Dist.	35,556	---	35,556	31,859	---	31,359
Sulphate	30,115	---	30,115	31,277	---	31,277
Dest. Dist.	1,129	---	1,129	1,336	---	1,336
Total	145,477	78,677	66,800	139,046	74,574	64,472

TABLE 5b - PRODUCTION OF ROSIN (Drums 520 lbs. net)

Gum	204,045	204,045	---	198,312	198,312	---
Reclaimed gum	2,451	2,451	---	3,080	3,080	---
Wood						
Steam Dist.	210,1941/	---	210,1941/	175,358	---	175,358
Sulphate	---	---	---	---	---	---
Dest. Dist.	---	---	---	---	---	---
Total	416,690	206,496	210,1941/	376,750	201,392	175,358

TABLE 5c - PRODUCTION OF BLACK LIQUOR SOAP AND TALL OIL<sup>2</sup>/

	<u>1946-47</u> <u>3 mos. (April - June)</u>	<u>1945-46</u> <u>3 mos. (April - June)</u>
Black Liquor Soap Reported as produced	55,492 tons	54,949 tons
Black Liquor Soap Reported as acidified	55,175 tons	53,718 tons
To produce according to reports Crude Tall Oil	25,616 tons	26,075 tons

<sup>1/</sup> This figure now represents the total primary production of FF wood rosin. Much of this is refined to produce pale grades with concomitant production of "B wood resin" as a by-product.

<sup>2/</sup> See foreword for definition.

TABLE 6 - PRODUCTION OF GUM TURPENTINE BY STATES<sup>1/</sup>

	<u>1946-47</u> <u>3 mos. (April - June)</u>		<u>1945-46</u> <u>3 mos. (April - June)</u>	
	<u>Barrels</u>	<u>Percentage</u>	<u>Barrels</u>	<u>Percentage</u>
South Carolina	456	0.58	625	0.84
Georgia	60,385	76.75	55,777	74.79
Florida	13,324	16.93	13,198	17.70
Alabama	3,342	4.25	3,792	5.08
Mississippi	818	1.08	805	1.08
Louisiana	322	0.41	377	0.51
Total	78,677	100.00	74,574	100.00

TABLE 7 - MISCELLANEOUS NAVAL STORES (Bbls. - 50 gals.)

	<u>1946-47</u> <u>3 mos. (April - June)</u>	<u>1946</u> <u>June 30</u>	<u>1945-46</u> <u>3 mos. (April - June)</u>	<u>1945</u> <u>June 30</u>
	<u>Production</u>	<u>Stocks</u>	<u>Production</u>	<u>Stocks</u>
Pine Oil	27,835	10,753	27,711	10,433
Pine Tar	23,839	1,197	23,782	4,184
Rosin Oil	3,825	2,880	6,717	2,028
Dipentene	5,583	2,210	5,001	4,607
Other Monocyclic Hydrocarbons	8,634	5,998	8,523	4,033

<sup>1/</sup> A unit of naval stores consists of one 50-gallon barrel of turpentine and two and two-thirds drums (each 520 lbs. net) of rosin.

TABLE 8a - REPORTED CONSUMPTION OF TURPENTINE IN UNITED STATES (Bbls. - 50 gals.)  
(By naval stores crop years, beginning April 1 and ending March 31)

	1946-47 3 mos. (April - June)		1945-46 3 mos. (April - June)			
	Total	Gum <sup>1/</sup>	Wood <sup>1/</sup>	Total	Gum <sup>1/</sup>	Wood <sup>1/</sup>
Abattoirs	0			0		
Adhesives & plastics	61			75		
Asphaltic products	0			0		
Automobiles & wagons	35			57		
Chemicals & pharmaceuticals	21,602			32,320		
Ester gum & synthetic resins	4,100			5,413		
Foundries & foundry supplies	201			152		
Furniture	41			38		
Insecticides & disinfectants	3			5		
Linoleum & floor covering	0			10		
Matches	0			0		
Oils & greases	4			58		
Paint, varnish & lacquer	5,052			4,509		
Paper & paper size	0			0		
Printing ink	59			56		
Railroads & shipyards	1,901			2,635		
Rubber	90			327		
Shoe polish & shoe materials	2,190			2,828		
Soap	0			0		
Other industries	34			43		
Total industrial reported	35,373	7,475	27,898	48,533	9,391	39,142
Not accounted for <sup>2/</sup>	116,764	79,986	36,778	93,460	73,865	19,595
Apparent U. S. consumption <sup>3/</sup>	152,137	87,461	64,676	141,993	83,256	58,737

1/ Separation of gum and wood turpentine consumption will be limited for the present to the total reported.

2/ Principally unreported distribution of turpentine through retailers who sell in small quantities to ultimate consumers.

3/ From Table 1a, page 1.

TABLE 8b - REPORTED CONSUMPTION OF ROSIN IN UNITED STATES (Drums - 520 lbs. net)  
 (By naval stores crop years, beginning April 1 and ending March 31)

	1946-47 2 mos. (April - June)			1945-46 2 mos. (April - June)		
	Total	Gum <sup>1/</sup>	Wood <sup>1/</sup>	Total	Gum <sup>1/</sup>	Wood <sup>1/</sup>
Abattoirs	126			117		
Adhesives & plastics	4,572			6,078		
Asphaltic products	384			550		
Automobiles & wagons	43			31		
Chemicals & pharmaceuticals	76,464 <sup>2/</sup>			76,615 <sup>2/</sup>		
Ester gum & synthetic resins	67,682			68,472		
Foundries & foundry supplies	3,215			4,623		
Furniture	1			1		
Insecticides & disinfectants	1,435			1,741		
Linoleum & floor covering	3,395			1,920		
Matches	657			364		
Oils & greases	3,458			8,736		
Paint, varnish & lacquer	28,121			27,112		
Paper & paper size	79,209			72,596		
Printing ink	2,146			1,807		
Railroads & shipyards	3,723			4,998		
Rubber	5,096			8,235		
Shoe polish & shoe materials	1,610			1,679		
Soap	38,674			72,963		
Other industries	1,107			1,410		
Total industrial reported	321,118 <sup>2/</sup>	118,710	202,408 <sup>2/</sup>	360,048 <sup>2/</sup>	214,016	146,032 <sup>2/</sup>
Not accounted for <sup>3/</sup>	28,652	21,922	6,730	-7,472	-7,570	98
Apparent U. S. consumption <sup>4/</sup>	349,770	140,632	209,138	352,576	206,446	146,130

- <sup>1/</sup> Separation of gum and wood rosin consumption will be limited for the present to the total reported. The breakdown shown is an approximation.
- <sup>2/</sup> Includes, as rosin consumed, the "B wood resin" produced in refining FF wood rosin to paler grades. No data are reported on the consumption of "B wood resin" as such.
- <sup>3/</sup> The discrepancy between the total industrial consumption reported and the apparent U. S. consumption is due partly to unreported industrial consumption and partly to failure of some consumers to distinguish in their reports between gum rosin, wood rosin, and modified or derived rosins.
- <sup>4/</sup> From Table 1b, page 2.

ADDENDA

Additional information pertaining to naval stores may be obtained as follows:

For periods prior to 1942, for monthly, quarterly, and annual reports on imports and exports of turpentine and rosin, address: Foreign Trade Statistics, Bureau of the Census, Department of Commerce, Washington, D. C. Price ten cents per copy.

For biennial census of the production of turpentine and rosin, address: Bureau of the Census, Department of Commerce, Washington, D. C.

For information on the Naval Stores Conservation Program, write to the Regional Forester, U. S. Forest Service, Glenn Building, Atlanta 3, Georgia.

For information on the southern forest survey showing turpentine timber resources, address: Southern Forest Experiment Station, Box 7295, Midcity Station, New Orleans 19, Louisiana.

For information regarding the production, distribution, consumption, and stocks of turpentine and rosin, address: Naval Stores Research Division, Bureau of Agricultural and Industrial Chemistry, 2100 Robert E. Lee Boulevard, New Orleans 19, Louisiana.